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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,541	02/10/2004	Amir Morad	13757US03	3126

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EXAMINER	
VO, TUNG T	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,541	MORAD ET AL.	
	Examiner	Art Unit	
	Tung Vo	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/170,019. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current applications, 10/776,541, and the copending application, 10/170,019, claim common limitations as follows a single chip digital signal processing apparatus for real time video/audio/data encoding, said apparatus comprising: a video encoder for generating uncompressed video data; encoded video data from an audio encoder for generating encoded audio data from uncompressed audio data; and a mux processor to generate a multiplexed output stream of data from said encoded video data and said encoded audio data and said encoded user data; wherein encoding parameters of said video encoder and said audio

encoder and said data encoder are programmable; a digital video broadcasting (DVB) formatter to generate a DVB interface signal to transmit encoded data directly from said single chip to another chip without the aid of an intermediate interface external to said single chip; a PCI interface comprising a DMA engine for transferring at least one of compressed and uncompressed data to and from said single chip, to directly communicate with a PCI bus without the aid of an intermediate interface external to said single chip; a 12C/GPIO interface that may be programmed to allow said single chip to communicate with other devices external to said single chip using an 12C protocol or some other general interface protocol; a video blanking interval (VBI) and picture interval extractor to extract and format user data embedded in a VBI and picture interval of said uncompressed video data into an encoded data stream; wherein said uncompressed video data and said uncompressed audio data are encoded with either MPEG-1 or MPEG-2 standards and Dolby AC-3; wherein said uncompressed video data comprises CCIR-656 video data; wherein said uncompressed audio data comprises one of 12S audio data and AC97 audio data. The claimed limitations of the application, 10/776,541, are broader than the claimed limitations of the copending application, 10/170,019.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. (US 5,745,645).

Re claim 1, Nakamura discloses a single chip digital signal processing apparatus (fig. 2) for real time video/audio/data encoding (video encoder, 300 of fig. 2, audio encoder, 700 of fig. 2, and sub-picture encoder is a data encoder, 500 of fig. 2), said apparatus comprising:

a video encoder for generating encoded video data from uncompressed video data (300 of fig. 2);

an audio encoder (700 of fig. 2) for generating encoded audio data from uncompressed audio data (AUDIO); and

a mux processor (900 of fig. 2) to generate a multiplexed output stream of data from said encoded video data and said encoded audio data and said encoded user data (St27, St31, and St29 of fig. 2).

Re claim 2, Gordon further discloses wherein encoding parameters of said video encoder and said audio encoder and said data encoder are programmable (col. 2, lines 35-40, Note the object of the present invention is to provide an effective authoring system for controlling a

multimedia data bitstream with advanced hardware and software requirements using a data unit smaller than the title to better address advanced user requirements) .

Re claim 7, Gordon further discloses wherein said uncompressed video data and said uncompressed audio data are encoded with either MPEG-1 or MPEG-2 standards and Dolby AC-3 (col. 18, lines 35-40; wherein this encoded audio data may be data based on the MPEG1 audio standard defined in ISO-11172 and the MPEG2 audio standard defined in ISO-13818, AC-3 audio data, or PCM (LPCM) data. Note that the methods and means of encoding audio data according to these standards are known and commonly available; col. 28, lines 18-25).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US 5,745,645) as applied to claim 1, and further in view of Baker et al. (US 6,347,344 B1).

Re claims 3-5, and 8-9, Nakamura does not particularly discloses DVB formatter, PCI interface communicates with PCI bus, a 12C/GPIO interface, CCIR-656 video data, and at least one of 12S audio data and AC97 audio data as specified in claims 3-5, 8-9, respectively.

However, Baker teaches a digital video broadcasting (DVB) formatter (224 of fig. 1B) to generate a DVB interface signal to transmit encoded data directly from said single chip to

another chip without the aid of an intermediate interface external to said single chip (100 of fig. 1); a PCI interface (130 of fig. 1A) to directly communicate with a PCI bus (132 of fig. 1) without the aid of an intermediate interface external to said single chip (132 of fig. 1); a 12C/GPIO interface (216 of fig. 1 B) that may be programmed to allow said single chip to communicate with other devices external to said single chip using an 12C protocol or some other general interface protocol, wherein said uncompressed video data comprises CCIR-656 video data (224, CCIR of fig. 1B); wherein said uncompressed audio data comprises one of 12S audio data and AC97 audio data (212 of fig. 1B), see entire figure 1B of Baker.

Therefore, taking the combined teachings of Nakamura and Baker as a whole; therefore it would have been obvious to one of ordinary skill in the art to incorporate the teachings (fig. 1B) of Baker into the single chip apparatus of Nakamura for the same purpose of performing interfacing between the single chip and the external devices. Doing so would reduce the space of the circuit and cost and allow a user to program the single chip for performing multiple functions at once when the single chip apparatus is activated.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US 5,745,645) as applied to claim 1, and further in view of Ullman et al. (US 6,018,768).

Re claim 6, It is noted that Nakamura does not particularly a video blanking interval (VBI) extractor and slicer to extract and format user data embedded in a VBI of said uncompressed video data into an encoded data stream or unencoded data stream as claimed.

However, Ullman teaches a video blanking interval (VBI) extractor and slicer to extract and format user data embedded in a VBI of said uncompressed video data into an encoded data

stream or unencoded data stream (4, 8 of fig. 1, see also col. 4, line 55-col. line 2). Taking the combined teachings of Nakamura and Ullman as a whole; therefore it would have been obvious to one of ordinary skill in the art to incorporate the video blanking interval (VBI) (4 of fig. 1) of Ullman into the single chip apparatus of Nakamura for the purpose of embedding a user data into the encoded or unencoded stream that will transmitted to a user for viewing purpose. Doing so would allow each user to receive information uniquely relevant to their interests, demographics, history etc. as suggested by Ullman (col. 3, line 60-col. 4, line 13).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Imahashi et al. (US 6,438,317) discloses encoded stream generating apparatus and method, data transmission and method, and editing system and method.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tung Vo
Primary Examiner
Art Unit 2621